

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2001-NM-207-AD; Amendment 39-13379; AD 2003-24-10]

RIN 2120-AA64

Airworthiness Directives; McDonnell Douglas Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F, DC-10-30F (KC10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, MD-10-30F, MD-11, and MD-11F Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain McDonnell Douglas Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F, DC-10-30F (KC10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, MD-10-30F, MD-11, and MD-11F airplanes, that requires a one-time inspection to determine the thickness of the walls of the rudder pedal arm assembly for the captain's and first officer's rudder pedals, and follow-on actions. This action is necessary to prevent failure of the rudder pedal arm assembly, which, under certain conditions, could result in reduced controllability of the airplane. This action is intended to address the identified unsafe condition.

DATES: Effective January 8, 2004.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of January 8, 2004.

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Aircraft Group, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Data and Service Management, Dept. C1-L5A (D800-0024). This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Ron Atmur, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5224; fax (562) 627-5210.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain McDonnell Douglas Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F, DC-10-30F (KC10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, MD-10-30F, MD-11, and MD-11F airplanes was published in the Federal Register on September 4, 2002 (67 FR 56503). That action proposed to require a one-time inspection to determine the thickness of the walls of the rudder pedal arm assembly for the captain's and first officer's rudder pedals, and follow-on actions.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

No Objection to the Proposed AD

Two commenters have no objection to the technical content or compliance time of the proposed AD.

Request To Use High Frequency Eddy Current Inspection

Certain commenters request that the proposed AD be revised to allow the use of a high frequency eddy current inspection, developed by Boeing, as an optional alternative to the dye penetrant inspection in paragraphs (a)(1) and (b) of the proposed AD. The commenters contend that the eddy current inspection is more convenient, less labor intensive, and yields better results.

We do not agree with the request to allow the eddy current inspection as an optional alternative to the dye penetrant inspection in paragraphs (a)(1) and (b) of the AD. While we have determined that the eddy current inspection would allow operators to have flexibility in the inspection techniques without compromising safety, Boeing has not provided a copy of this inspection to the FAA for approval. However, under the provisions of paragraph (f) of the final rule, we may consider requests for approval of an alternative method of compliance if sufficient data are submitted to substantiate that such an eddy current inspection would provide an acceptable level of safety. No change to the final rule is necessary in this regard.

Request To Extend the Inspection Interval

Certain commenters request an extension of the repetitive inspection interval in paragraph (b)(1) of the proposed AD from 5,200 flight hours to 6,300 flight hours. The commenters contend that 6,300 flight hours would better suit their maintenance schedules.

We do not agree with the request to extend the repetitive inspection interval in paragraph (b)(1) of the AD to 6,300 flight hours. We have reviewed previous occurrences, considered the likelihood and severity of the unsafe condition, and determined that the proposed inspection threshold and repetitive intervals are appropriate. No change to the final rule is necessary in this regard.

Request To Allow Use of Certain Parts

Certain commenters request that the proposed AD be revised to allow parts that are in operators' stock that meet the thickness requirements of paragraph (b) of the proposed AD to be installed and inspected in accordance with paragraph (b)(1) or (b)(2), as applicable. These commenters point out that the proposed AD allows parts that meet these requirements to be inspected indefinitely. Therefore, it would be an unnecessary cost to purge an operator's stock or not be able to replace cracked or unacceptable parts with these parts.

The FAA agrees with the request. We have revised paragraph (e) of the AD so that the crack-free parts with the dimensions defined in paragraph (b) of the AD are acceptable for continued service provided that the repetitive inspections required by paragraph (b) of the AD are accomplished.

Editorial Changes

In reviewing these comments, we noted that, while the service bulletin and the "Differences" section of the proposed AD both correctly state the proposed repetitive inspection interval in terms of flight hours, the proposed AD text erroneously states the interval in terms of flight cycles. We have corrected this error in the final rule. Since both the service bulletin and the preamble of the proposed AD used the correct term, and we did not indicate an intention to deviate from the service bulletin in this regard, we consider that the public has had a reasonable opportunity to comment on the compliance times for this AD.

Conclusion

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes previously described. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Changes to 14 CFR Part 39/Effect on the AD

On July 10, 2002, the FAA issued a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs the FAA's airworthiness directives system. The regulation now includes material that relates to altered products, special flight permits, and alternative methods of compliance. However, for clarity and consistency in this final rule, we have retained the language of the NPRM regarding that material.

Change to Labor Rate Estimate

We have reviewed the figures we have used over the past several years to calculate AD costs to operators. To account for various inflationary costs in the airline industry, we find it necessary to increase the labor rate used in these calculations from \$60 per work hour to \$65 per work hour. The cost impact information, below, reflects this increase in the specified hourly labor rate.

Cost Impact

There are approximately 594 airplanes of the affected design in the worldwide fleet. We estimate that 366 airplanes of U.S. registry will be affected by this AD, that it will take approximately 4 work hours per airplane to accomplish the inspection to determine wall thickness, and that the average labor rate is \$65 per work hour. Based on these figures, the cost impact of the AD on U.S. operators is estimated to be \$95,160, or \$260 per airplane.

Should an operator be required to accomplish the follow-on inspection to detect cracking, the inspection will take approximately 1 work hour per airplane, at an average labor rate of \$65 per work hour. Based on these figures, the cost impact of this inspection will be approximately \$65 per airplane, per inspection cycle.

Should an operator be required to accomplish the replacement of a rudder pedal arm assembly, the replacement will take approximately 4 work hours per assembly, per airplane, at an average labor rate of \$65 per work hour. Parts will cost approximately \$2,943 per assembly. Based on these figures, the cost impact of this replacement will be approximately \$3,203 per rudder pedal arm assembly, per airplane.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

For Model MD-11 and -11F airplanes within the period under the warranty agreement, we have been advised that the manufacturer has committed previously to its customers that it will bear the cost of replacement parts. We have also been advised that manufacturer warranty remedies may be available for labor costs associated with accomplishing the actions that would be required by this AD. Therefore, the future economic cost impact of this AD may be less than the cost impact figure indicated above.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2003-24-10 McDonnell Douglas: Amendment 39-13379. Docket 2001-NM-207-AD.

Applicability: Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F, DC-10-30F (KC10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, and MD-10-30F airplanes; as listed in Boeing Alert Service Bulletin DC10-27A233, Revision 01, dated June 6, 2002; and Model MD-11 and MD-11F airplanes; as listed in Boeing Alert Service Bulletin MD11-27A080, Revision 01, June 6, 2002; certificated in any category.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (f) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent failure of the rudder pedal arm assembly, which, under certain conditions, could result in reduced controllability of the airplane, accomplish the following:

One-Time Ultrasonic Inspection

(a) Within 6 months after the effective date of this AD, perform a one-time ultrasonic inspection to determine the thickness of the walls of the rudder pedal arm assembly for both the captain's and first officer's rudder pedals, per the Accomplishment Instructions of Boeing Alert Service Bulletin DC10-27A233, Revision 01, dated June 6, 2002 (for Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F, DC-10-30F (KC10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, and MD-10-30F airplanes); or Boeing Alert Service Bulletin MD11-27A080, Revision 01, June 6, 2002 (for MD-11 and MD-11F airplanes); as applicable.

(1) If the wall thickness is within the design specifications or operational limits specified in the Accomplishment Instructions and Figure 1 of the applicable service bulletin: Before further flight, perform a dye penetrant inspection for cracking of the clevis of the rudder pedal arm assembly, per the Accomplishment Instructions of the service bulletin. If no cracking is found, do paragraph (b) or (c) of this AD, as applicable.

(2) If the wall thickness is outside the limits specified in the applicable service bulletin: Do paragraph (d) of this AD.

Condition 1: Wall Thickness Within Design Specifications; No Cracking

(b) During the inspections required by paragraphs (a) and (a)(1) of this AD, if the wall thickness of the rudder pedal assembly is within the design specifications as specified in the Accomplishment Instructions and Figure 1 of the applicable service bulletin, and no cracking of the clevis is found: Repeat the dye penetrant inspection specified in paragraph (a)(1) of this AD to find cracking of the clevis of the rudder pedal assembly at the applicable intervals specified in paragraph (b)(1) or (b)(2) of this AD; per the Accomplishment Instructions of Boeing Alert Service Bulletin DC10-27A233, Revision 01, dated June 6, 2002 (for Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F, DC-10-30F (KC10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, and MD-10-30F airplanes); or Boeing Alert Service Bulletin MD11-27A080, Revision 01, June 6, 2002 (for MD-11 and MD-11F airplanes); as applicable. Replacement of the rudder pedal arm assembly with a new, improved assembly per the Accomplishment Instructions of the applicable service bulletin terminates the repetitive inspections.

(1) For Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F, DC-10-30F (KC10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, and MD-10-30F airplanes: Repeat the inspection every 5,200 flight hours until the rudder pedal arm assembly is replaced with a new, improved assembly per the Accomplishment Instructions of the applicable service bulletin.

(2) For MD-11 and MD-11F airplanes: Repeat the inspection every 4,200 flight hours until the rudder pedal arm assembly is replaced with a new, improved assembly per the Accomplishment Instructions of the applicable service bulletin.

Condition 2: Wall Thickness Within Operational Limits; No Cracking

(c) During the inspections required by paragraphs (a) and (a)(1) of this AD, if the wall thickness of the rudder pedal arm assembly is within the operational limits specified in the Accomplishment Instructions and Figure 1 of the applicable service bulletin, and no cracking of the clevis is found: Do paragraphs (c)(1) and (c)(2) of this AD per the Accomplishment Instructions of Boeing Alert Service Bulletin DC10-27A233, Revision 01, dated June 6, 2002 (for Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F, DC-10-30F (KC10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, and MD-10-30F airplanes); or Boeing Alert Service Bulletin MD11-27A080, Revision 01, June 6, 2002 (for MD-11 and MD-11F airplanes); as applicable.

(1) Condition 2, Phase 1: Before further flight, change the part number of the rudder pedal arm assembly to identify the assembly as a "temporary operation" part.

(2) Condition 2, Phase 2: At the applicable time specified in paragraph (c)(2)(i) or (c)(2)(ii) of this AD, replace the "temporary operation" rudder pedal arm assembly with a new, improved rudder pedal arm assembly.

(i) For Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F, DC-10-30F (KC10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, and MD-10-30F airplanes: Replace within 5,200 flight hours after the inspection in paragraph (a)(1) of this AD.

(ii) For MD-11 and MD-11F airplanes: Replace within 4,200 flight hours after the inspection in paragraph (a)(1) of this AD.

Conditions 3 and 4: Wall Thickness Not Within Limits; Clevis Cracked or Broken

(d) During the inspection per paragraph (a) of this AD, if the wall thickness of the rudder pedal arm assembly is not within the design specifications or the acceptable operational limits specified in the applicable service bulletin; or during any inspection per paragraph (a)(1) or (b) of this AD, if the clevis of the rudder pedal assembly is cracked or broken: Before further flight, replace the rudder pedal assembly with a new, improved rudder pedal assembly per Condition 3 or 4, as applicable, of

the Accomplishment Instructions of Boeing Alert Service Bulletin DC10-27A233, Revision 01, dated June 6, 2002 (for Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F, DC-10-30F (KC10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, MD-10-30F airplanes); or Boeing Alert Service Bulletin MD11-27A080, Revision 01, June 6, 2002 (for MD-11 and MD-11F airplanes); as applicable. Such replacement terminates any repetitive inspections required by this AD.

Parts Installation

(e) As of the effective date of this AD, no person shall install a rudder pedal arm assembly having part number ABH7239-1 or ABH7239-2 on any airplane unless the parts meet the dimensional and crack-free requirements of paragraph (b) of this AD and the repetitive inspections required by that paragraph are accomplished.

Alternative Methods of Compliance

(f) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Los Angeles Aircraft Certification Office (ACO), FAA. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Los Angeles ACO.

Note 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Los Angeles ACO.

Special Flight Permits

(g) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(h) The actions shall be done in accordance with Boeing Alert Service Bulletin DC10-27A233, Revision 01, dated June 6, 2002; or Boeing Alert Service Bulletin MD11-27A080, Revision 01, June 6, 2002; as applicable. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Aircraft Group, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Data and Service Management, Dept. C1-L5A (D800-0024). Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(i) This amendment becomes effective on January 8, 2004.

Issued in Renton, Washington, on November 26, 2003.
Kalene C. Yanamura,
Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.
[FR Doc. 03-30109 Filed 12-3-03; 8:45 am]
BILLING CODE 4910-13-P